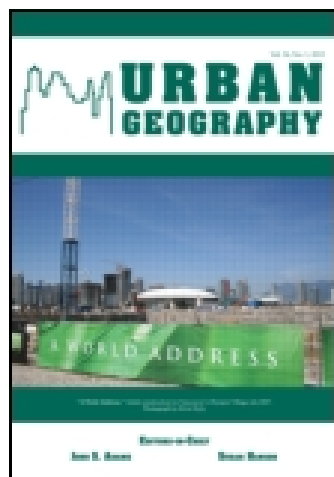


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RESIDENTIAL SATISFACTION IN CHINA'S INFORMAL SETTLEMENTS: A CASE STUDY OF BEIJING, SHANGHAI, AND GUANGZHOU

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Abstract: China's informal settlements—villages inside urbanized areas—are often characterized by local governments as dirty, chaotic, and dangerous places. This negative discourse inevitably leads to recommendations for demolition. A number of criteria have been invoked in state decisions regarding the demolition of informal settlements; however, rarely are these places evaluated from the residents' perspective. This paper, following a long tradition of residential satisfaction research in Western nations, uses a household survey to examine this topic in the cities of Beijing, Shanghai, and Guangzhou. We find that local contexts not only matter, but may be the principal determinants of residential satisfaction. The residential satisfaction of village dwellers is not necessarily low, and most socioeconomic attributes are not statistically significant determinants of resident satisfaction. Migrants and low-income groups are not less satisfied than nonmigrants or middle-range income earners; the most important determinant is social attachment within the community. The perception of being excluded, or lacking neighborhood social attachment, significantly reduces residential satisfaction. No facilities can compensate for this negative exclusion factor. We conclude that demolishing informal settlements does not help to build a "harmonious society," which is the purported goal of such programs. Removing the social and institutional barriers for migrant integration into the city is likely the most effective way to enhance residential satisfaction and neighborhood quality. [Key words: residential satisfaction, urban villages, Chinese cities, rural migrants, slums, informal settlements.]

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INTRODUCTION

China's informal settlements—villages inside urbanized areas—are often characterized by official media as dirty, chaotic, and dangerous places that are unsalvageable and should be demolished. The vocabulary used to describe slums in this context recreates problematic myths about poor people by confusing the physical problem of informal housing structures with the characteristics of the people living there (Gilbert, 2007). In response to UN-Habitat's (2003) agenda for “cities without slums”, governments in many countries have begun to promote slum demolition. Rarely are these places evaluated from the perspective of dwellers. As such, the key question we seek to address with this paper is to what extent residents of informal settlements are satisfied with their residential and neighborhood conditions. We address this question with a residential satisfaction survey as our methodology. Such surveys have been conducted extensively in the Western context of middle-class residential areas but have not, to our knowledge, been often applied in the context of informal settlements in developing countries. Through this paper, we seek to explore the feelings of informal settlement residents in China about their own living conditions.

This paper aims to examine informal settlements (also referred to here as urban villages) in Beijing, Shanghai, and Guangzhou, the three largest cities in China. Urban villages (or *chengzhongcun* in Chinese) are former rural villages encircled by rapid urban expansion (Wu, 2009). These villages have long been residential enclaves for both the original villagers and for rural migrants working in the cities; these villages, therefore, may be considered one of the more pervasive forms of “enclave urbanism” in the evolving configurations of spatial segregation in China's urbanization (cf. Breitung, 2012; Douglass et al., 2012; Li et al., 2012; Shen and Wu, 2012; Wang et al., 2012; Yip, 2012). In Guangzhou, Zhang et al. (2003) reported that there were 277 urban villages and that these villages absorb a large influx of migrants. Because of poor housing and living conditions, urban villages are often regarded by scholars, development agencies, and local governments as “Chinese slums.” However, unlike informal settlements in other developing countries, these villages were not originally constructed by new migrants but rather by villagers who lived there previously to urban expansion. Due to continued in-migration from rural areas, the original residential stock of these villages has been subdivided and expanded to accommodate new residents. The housing in urban villages is predominantly informal private rental housing, not “self-help” or self-constructed housing (Wu, 2002). Landlords are usually original residents of these villages.

Given the rapid growth of rural-to-urban migration in China, and the resultant population growth of informal settlements, it is urgent to understand more deeply the living conditions of these migrants. This is especially true given the demolition imperatives of local governments, which seek to clear these settlements and displace their residents. The state discriminates against rural migrants through a number of legal and social avenues (Fan, 2008; Solinger, 1999). The habitat of migrants is now under threat of wholesale demolition, as large cities such as Beijing, Shanghai, Guangzhou and Shenzhen have demolished a number of migrant villages (see Hao et al., 2011; Li and Li, 2011). Moreover, there is a need to study these settlements from the perspective of their residents. Current studies on migrants and informal settlements have not paid adequate attention to the feelings of inhabitants about their living places. In this sense, our data on

residential satisfaction can assist in a better understanding of these villages and, more crucially, to develop an alternative view to the official discourse, which depicts these areas in entirely negative terms. Derogatory references to urban villages can be found in various governmental documents, which refer to urban villages variously as “urban cancer”, “scars,” and “tumors.” Such descriptions are ubiquitous across the globe, including in Western nations. Scholarship from Gilbert (2007) and others calls attention to the impact of this discourse, the international problematization of slums, and normalization of governments’ calls for their demolition.

The paper is organized as follows: first, we review the literature on residential satisfaction in different countries and its relation to current studies in Chinese cities. Second, we use data collected from fieldwork to interrogate the social, political, and spatial conditions of Chinese urban villages, from which we develop several hypotheses about residential satisfaction in urban villages. Third, we introduce our survey of urban villages. We discuss the conditions of housing, security, sanitation, and neighborhoods and apply both quantitative and qualitative analyses. Fourth, we analyze the determinants of residential satisfaction through a regression analysis. We conclude by explaining the factors affecting residential satisfaction and the mechanisms that inform them.

LITERATURE REVIEW: RESIDENTIAL SATISFACTION IN DIFFERENT CONTEXTS

Residential satisfaction studies have a long history, and the topic has received recent attention, especially in Western Europe, in the context of the “social cohesion” agenda – the glue or social network that maintains the stability of a social system (for a review, see Dekker and Bolt, 2005). Residential satisfaction is often conceptualized as the difference between households’ actual and expected housing and neighborhood conditions (Galster and Hesser, 1981). Higher residential satisfaction reflects a greater degree of congruence between actual and desired conditions. To explain what factors affect residential satisfaction, this literature usually focuses on three aspects: the effects of respondents’ socio-demographic characteristics, their housing characteristics, and variables describing the socio-spatial characteristics of neighborhoods (for a review, see Dekker et al., 2011). First, individual household characteristics may affect residential satisfaction; such factors include age, race, education, gender and marriage status of the head of household, income, and presence of children. For instance, in the United States, white and older residents tend to have higher residential satisfaction than other groups (Lu, 1999). Education also appears to have a positive effect on residential satisfaction. Residents with a college education are more likely to express higher satisfaction than respondents without a college education.

Second, housing characteristics mainly include such factors as physical conditions, location, and housing tenure. Positive housing characteristics including larger house size and better internal structure have been found to be important in accounting for higher resident satisfaction (Davis and Finedavis, 1981). Locational factors generally refer to the accessibility of necessary services such as schools, shops, and green spaces. Housing tenure represents an important determinant in many studies (Lu, 1999; Rohe and Stegman, 1994). In general, homeowners are more satisfied with their neighborhoods compared with their renters (Lu, 1999). In addition, the length of residence has also been shown to

be important (Kasarda and Janowitz, 1974), as it can positively affect residential satisfaction. Third, the characteristics evaluated by neighborhood satisfaction surveys are typically defined according to the degree of quality in four areas: the physical environment, access to various activity nodes, local services and facilities, and socioeconomic settings (Baum et al., 2010; O'Brien and Lange, 1986).

Scholars have studied neighborhood satisfaction from two main perspectives. The early human ecological perspective predicted that residential satisfaction would be inversely related to the size and density of neighborhoods (Parkes et al., 2002). In contrast, the systematic model supports the idea that residential satisfaction depends more on social factors such as neighborhood stability, the presence of relatives, and the intensity of social interaction (Kasarda and Janowitz, 1974; Parkes et al., 2002). Accordingly, residents of higher density communities are not necessarily more dissatisfied than residents in less-dense areas. Parkes et al. (2002) analyzed the 1997–1998 Survey of English Housing and suggested that community attributes (crime, neighbors, schools, and traffic) are major predictors of residential satisfaction. Neighborhood type was found to be a significant predictor of residential satisfaction in England. Fleury-Bahi et al. (2008) surveyed 257 residents in three major French cities, Paris, Bordeaux, and Nantes, and found that the residents' sense of identification with their neighborhoods affected residential satisfaction. However, the sense of identification (attachment) affected only certain aspects of satisfaction. In the case of the American Housing Survey, Chapman and Lombard (2006) examined residential satisfaction in gated fee-based and nongated communities and found that respondents' age and knowledge of crime were important factors, but that the length of residence had no impact on the rating of neighborhoods and there was no significant difference between gated and nongated communities. The above studies highlight the value of exploring residential satisfaction in specific neighborhoods.

Few studies on neighborhood satisfaction have been conducted in developing countries. In the two states of Penang and Terengganu in Malaysia, Salleh (2008) examined residential satisfaction in low-income housing areas and found that neighborhood characteristics are important factors and that those in the less developed state were less satisfied. Mohit et al. (2010) studied Sungai Bonusa—newly designed low-cost public housing in Malaysia—and found that residents were moderately satisfied with dwelling units, support services, and public and neighborhood facilities. They also found that socioeconomic variables such as age, family size, working wives, and previous residential experience in public housing had negative impacts on residential satisfaction, whereas being Malay, employed, with higher floor level and greater length of residence had positive impacts. Ukoha and Beamish (1997) examined public housing in Abuja, Nigeria and found that residents were dissatisfied with housing conditions such as poor structure and management but were satisfied with neighborhood facilities.

Existing studies, thus, provide different results about certain variables such as age, race, income, and housing tenure. On the one hand, these inconclusive results are due to different survey and statistical methods. For example, Lu (1999) argues that an ordered logit model is more appropriate than a linear regression model. Most studies use national data without disaggregation into different neighborhoods. However, we posit that the relative importance of different variables in explaining residential satisfaction is highly dependent upon local conditions and histories. In this regard, residential satisfaction is an issue that defies global generalization and requires careful studies of specific geographies

or contexts. Given the difficulty of collecting data, as noted above, fewer studies have been conducted in developing countries and very little is known about migrant populations. A few notable exceptions point to an association between residential satisfaction and neighborhood attachment. In the 1960s, Fried and Gleicher (1961) studied Boston's West End and found, to their surprise, a reasonable level of satisfaction in the enclave. Amerigo and Aragones (1990) found that residential satisfaction in a marginal neighborhood in Madrid was closely associated with neighborhood attachment. Biswas-Diener and Diener (2001) found that slum dwellers including sex workers and homeless and pavement dwellers in Calcutta, India, generally expressed a lower sense of residential satisfaction than more affluent groups. However, they also found the satisfaction level of marginal residents to be higher than one might expect.

In recent years, studies of residential satisfaction have begun to be carried out in China. Fang (2006) conducted a survey of inner urban residents in Beijing and observed a low overall level of satisfaction. The two main determinants of satisfaction are housing size and length of residence. She also found that low residential satisfaction does not result in higher frequencies of relocation, in contrast to findings from the Western literature. Li and Song (2009) surveyed 1,200 households in Shanghai and found, surprisingly, that forced re-settlers do not suffer from lower residential satisfaction. Their explanation attributes this to the financial capacity of the Shanghai municipal government, which allows for better displacement compensation than other cities and controls the pace of redevelopment, managing to re-house settlers in a reasonable time. These two cases further suggest that the local contexts not only matter, but may be the key determinants of residential satisfaction.

There have been very few studies of migrants' residential satisfaction in China. One exception, Du and Li (2010) examined Guangzhou's migrants and their "community sentiment," specifically community satisfaction and community attachment, using a data set of 300 migrants surveyed in urban villages in 2005. Their results revealed that migrants' assessment of urban villages were by no means negative. Moreover, the authors asserted that residents' own perceptions of neighborhood quality were the most significant determinant of community satisfaction. In addition, the authors noted the significance of migrants' local social networks. In China's urban villages, the shanty-like appearance, high density, and chaotic land uses may give the impression that they are desperate slums (Liu et al., 2010; Zheng et al., 2009). Nevertheless, studies like Du and Li (2010) indicate more complex relations between migrants and their dwelling spaces.

Most recent studies of urban villages focus on the housing, land use, physical characteristics, and development mechanisms of these villages (Li and Li, 2011; Siu, 2007; Song et al., 2008; Tian, 2008; Wang et al., 2009; Zhang, 2011). Little is known about the experience of life and residential satisfaction from the residents' perspective (notable exceptions being Du and Li, 2010 and Solinger, 1999). Informal settlement dwellers in China and other countries have few opportunities to express their feelings about their living spaces, especially in the context of government decisions to demolish urban villages based on assessments of ownerships rights, land price, or projected returns on investments, none of which consider resident satisfaction. Thus, we argue that a series of critical questions remains unaddressed: What are the determinants of urban village dwellers' residential satisfaction? Are these determinants similar in different contexts? Should informal settlements be demolished and, if so, can such demolitions be just? This paper

intends to provide some partial answers to these questions through a study of residential satisfaction in the urban villages of Beijing, Shanghai, and Guangzhou.

CHINA'S INFORMAL SETTLEMENTS AND RESIDENTIAL SATISFACTION

In this section, we discuss the residential satisfaction of informal settlement dwellers by shedding some light upon the specific political, economic, and spatial contexts of urban villages. According to the literature on residential satisfaction in the Western context, lower socioeconomic status may lead to residential dissatisfaction. Since urban villages are China's version of low status informal settlements, urban village dwellers may be expected to show low satisfaction levels. Village residents comprise three main groups: migrants, original villagers, and residents relocated from other urban places. Rural migrants are a large percentage of the residents of urban villages. They work in the city, especially in the service sector, but do not earn an income high enough for formal private rental housing. In some villages, migrants outnumber the original villagers. For example, our fieldwork in Sanyuanli village of Guangzhou revealed that the local population is only 8,985, while there are 40,000 rural migrants. The second group of village residents, the original villagers, are a more privileged group because they are often landlords. In addition, they receive a share in, and benefit from, collective village assets. Many local villagers no longer work because they lost their agricultural land during land requisition but are unwilling to work in low-paid industries. As a result, they rely on private rental housing as a source of income. The third group of village residents have relocated to the village from other urban areas. They may have a higher residential satisfaction level than rural migrants but also do not have access to a share of collectively owned village assets. In this sense, they are still treated as outsiders in the settlement.

Housing and living conditions in urban villages are characterized by informality. While residential areas in other parts of the city are developed under a formal residential plan, this is not the case for rental property in urban villages. Housing in villages cannot be sold in the formal urban housing market, and thus remains rental housing. The village-controlled collective land (*jiti yongdi*) is usually rented out for factories and urban markets. Villagers' housing plots (*zai ji di*) are allocated for housing construction. In order to maximize rental income, new construction is built intensively up to the plot boundaries. In Guangzhou, rental housing reaches as high as ten stories, exceeding the limit of 4.5 floors specified by municipal regulations. For example, Guangzhou's Sanyuanli village has 3,471 buildings. About 906 are higher than four storeys, accounting for more than 26% of the total number of buildings. The total building area of Sanyuanli village is about 1.6 million square metres. Residential buildings are subdivided into apartments smaller than those found in the formal market in order to maximize rental income for landlords. In Beijing, even underground space is used.

Village committees, or shareholder companies, are responsible for constructing basic infrastructure in urban villages. On the one hand, because these villages are in constant danger of demolition, village cadres are reluctant to invest in infrastructure, resulting in a lack of adequate infrastructure and facilities. On the other hand, the growth in population in urban villages increases the demand for infrastructure. In Sanyuanli village, for example, spending on "community management" by the village committee reached

13 million Yuan in 2006, including 6 million for social insurance of local villagers, 2 million for roads and sewage, 1 million for school, and 2.5 million for security and sanitation. Under Chinese dual land ownership system, urban and rural lands are under different ownerships. Urban villages are under collective ownership. During urban redevelopment, the local government acquires the rural land, converts its ownership into the state ownership, provides infrastructure investment, and then sells the serviced land to developers. Therefore, the municipal funding goes only into the state owned land but not the collectively-owned land. As a result, these villages lack sufficient investment in infrastructure, and are stigmatized as dirty, chaotic, and poor (*zhang, luan, cha*) places.

Despite inadequate infrastructure, urban villages provide relatively cheap rental housing, which is some of the only urban housing that rural migrants can afford. The rent is cheaper because the floor space is much smaller than in other commodity housing units nearby (Zheng et al., 2009). The infrastructure, however, cannot cope with the rapidly increasing migrant population. Very few urban villages have sewage, rubbish bins, or collection systems. Waste from a growing population has to be dumped in open spaces. Electric cables are available but mostly connected over buildings rather than embedded in underground cable pipes. This increases the risk of fire and electric shock. In summer time, when the demand for electric power increases, villages have to limit the supply to certain times of a day.

Whereas poor infrastructure may reduce residential satisfaction, urban villages are convenient places to live. Mixed land uses and flexible development mean that many facilities such as small shops, food markets, restaurants, pharmacies, nurseries, and barbers are nearby. These facilities are within walking distance, in contrast to the long distances in formally built urban areas. These small shops are cheaper than formal supermarkets and provide affordable products to the migrant population. The convenience of these facilities may increase residential satisfaction.

Based on the extant literature, we begin with the notion that the three sets of factors, socio-demographic characteristics, housing characteristics, and socio-spatial characteristics of neighborhoods, could be determinants of residential satisfaction in urban villages. In the light of the above discussion, we thus put forward five hypotheses. First, given that urban village residents include different social groups such as local villagers, migrants, and relocated urban residents, we hypothesize that different groups will have different levels of residential satisfaction (Hypothesis 1). Second, the regulation of urban villages is different in the three cities under study, and the objective conditions of urban villages, such as housing characteristics and infrastructure conditions, are very different; levels of residential satisfaction in urban villages may, therefore, differ depending on what overall context (what city) they are located (Hypothesis 2). For instance, Guangzhou may have a higher level of residential satisfaction as its control of urban village development is not as strict as that of Beijing or Shanghai, while the very strict control of village development in Shanghai may result in a lower level of residential satisfaction. We further hypothesize that the determinants of residential satisfaction in different cities may be different. For example, in terms of socio-demographic characteristics, extant studies have asserted that both socialist legacies such as *hukou* status (Chan, 1994; Fan, 2008; Zhang, 2001) and belonging to a work unit (Bian, 1994; Li and Yi, 2007), as well as market mechanisms such as income, educational attainments, and so on are important determinants for residential satisfaction

in Chinese cities. The impacts of these factors upon residential satisfaction in different cities may be different (Hypothesis 3). Fourth, given the transitory nature of migrants, and due to poor housing conditions in their original rural hometowns, migrants may have lower expectations with regard to their living conditions in urban villages; thus, they may have higher residential satisfaction than local villagers (Hypothesis 4). Fifth, the socio-spatial characteristics of specific neighborhoods, i.e., the subjective conditions of urban villages, will also impact the level of residential satisfaction in urban villages. In particular, we expect a positive relationship between residential satisfaction and length of residence, the latter presumably reflecting attachment to the village (Hypothesis 5). We test these hypotheses in the following empirical section.

THE SURVEY AND CASE STUDIES

We selected Beijing, Shanghai and Guangzhou as case studies for several reasons. First, these three cities are the major destinations of rural migrants. According to the sixth population census in 2010, the numbers of migrants in Beijing, Shanghai, and Guangzhou reached 7.04, 8.97, and 4.76 million, respectively. The proportion of migrants to “long term” urban residents in these three cities reached 35.9% in Beijing, 39.0% in Shanghai, and 37.5% in Guangzhou. Migration to these three cities has been the subject of much research, including migrant villages such as the “Zhejiang village” (Ma and Xiang, 1998; Zhang, 2001).

Second, urban villages in these cities have been extensively redeveloped into higher densities, but there is important variation between the three cases. In Guangzhou, for example, high-rise buildings are built with more than five floors. In Shanghai, many households still live in subdivided apartments. In Beijing, underground spaces are used for private rental housing for migrants. Third, in terms of development models, Guangzhou is known for its market-oriented approach (Xu and Yeh, 2003). Shanghai is more heavily regulated, with strong legacies of the centrally planned economy and closer control over migrants (Wu, 1999). Beijing, in terms of development models, is between Guangzhou and Shanghai (Sit, 1995). As a result, villages in Guangzhou represent highly developed collective village economies, whereas Shanghai villages are much weaker and do not usually provide shares and benefits to villagers. These cases provide a good understanding of the variety of urban villages in China.

Our survey was conducted in 2010, simultaneously in Beijing, Shanghai, and Guangzhou. This temporal control is intended to provide comparability between the three sites, and the survey was carried out before the Spring Festival, when many migrants return to the countryside. The survey used structured questionnaires completed during face-to-face interviews. The questionnaire consisted of six sections: socio-demographic attributes, income and spending, housing characteristics, employment, and neighborhood features. Our sampling approach was to randomly select 20 villages in each city; from each village, 20 households were randomly selected by way of a random start address with fixed intervals. This address-based approach is widely used in Chinese household surveys because there is no official list for migrants. The address-based approach is able to account for the migrant population better than other household registers. In total, we collected 1,208 valid questionnaires. The strength of this survey is that it is a multi-city survey with a relatively larger spread of surveyed villages (20 villages) rather than several

case villages. Given our sampling approach, developing the list of villages was a critical step and was carried out with the best resources available. In Beijing and Guangzhou, the “official” lists of villages were retrieved through contacts with local governments, likely because both cities intend to redevelop urban villages as a priority. For Shanghai, our survey was co-incident with the municipal planning bureau’s pilot study. The list of villages was collected from district planning offices.

Because the villages were randomly selected from the lists, their distribution reflects the characteristics of urban villages in general in the city. Figure 1 shows that they are located mostly in the peri-urban areas. In Beijing, villages within the fourth ring road will soon be demolished. The majority of urban villages (over 80%) are located between the fourth and sixth ring roads. In Shanghai, the total number of villages is smaller and mainly concentrated in a few districts such as Putuo, Xuhui, Minghang, Zhabei, and Pudong. In Guangzhou, villages are spread out across the central areas and more geographically distributed than those in Shanghai.

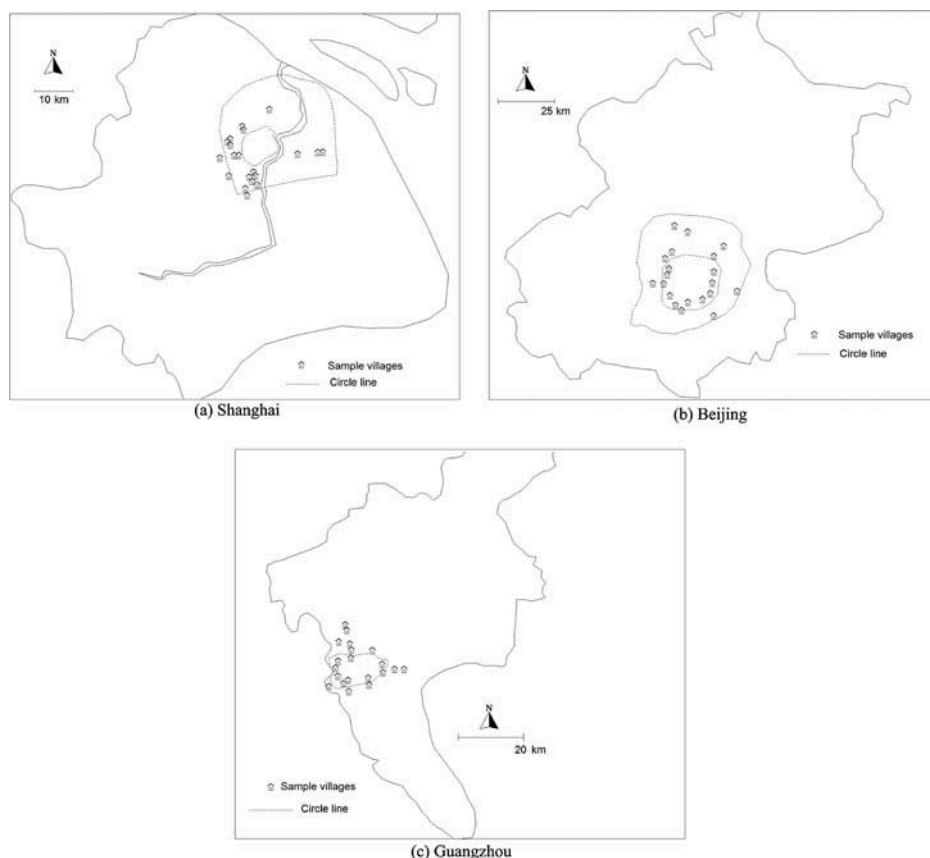


Fig. 1. The sample villages in Shanghai (a), Beijing (b), and Guangzhou (c) (2010).

RESIDENTIAL SATISFACTION OF URBAN VILLAGE RESIDENTS

In this section, we examine the residential satisfaction of urban village residents and identify its determinants. First, we explore the demographic and tenure spread of our survey subjects. Second, we analyze an index of residential satisfaction.

Demographics of Survey Subjects

The socioeconomic attributes of our survey subjects are listed in Table 1.² The profile is generally consistent with other studies on migrants. For instance, household heads tend to be married males; only 3% of sampled household heads are over 65 years. About 17% are females, and 80% of these are married. Moreover, 42% of households have at least one child under 18 years old. In Guangzhou, the proportion of families with children is as high as 46%—a feature that has significant implications for their housing and consumption behavior. In this respect, the following migrant family in Shanghai's Gaojiabang Village is fairly typical:

The couple are both about 25 years old, and their only daughter is about two years old. They once lived on the third floor of a village house. However, other renters in the building dislike the noise made by this little girl. Moreover, the house owner worried that the deteriorated balcony of their room may hurt the kid. So the family were asked to move. Two boys living in one room on the ground floor of the neighboring house happened to move away. So the young couple decided to move into this new room. Accordingly, the whole process of negotiation, emptying, cleaning and relocation just took about 30 minutes.

In terms of *hukou* (formal registration) status, the informal settlement dwellers are divided into four types of status: local urban residents, local rural residents (villagers), residents from other urban places, and rural migrants. Most residents in urban villages are now rural migrants. The last two categories are "migrants", and the former two types are nonmigrants. About 79% of the households in our sample are migrant families, among which 62% are rural migrants. Only 6% are village households. In Shanghai, the figure is just 1%. About 15% of this sample is comprised of local urban residents. Some may have converted from rural status when their land was acquired. Some are newcomers from other urban areas.

In general, the socioeconomic status of village dwellers is low. Only 6% earn an income above 6,000 Yuan per month. About 14% have university degrees or above.³ Most work in the private sector (about 56%) or other low-end occupations (about 24%). About 13% work in industrial and 50% in service sectors. About 5.8% are retired, and merely 2% do only housework; 3.9% claimed to be jobless. The majority of the adult population is economically active. This profile suggests that rural migrants live in factory dormitories

²Variables such as *hukou* and homeownership were selected to reflect institutional and social context.

³According to the 6th census of China (2010), about 9.5% of Chinese have educational attainments of university degree or above, and for cities the figure is as high as 21.5%, while for rural areas it is just 2.1%.

TABLE 1. SOCIOECONOMIC VARIABLES OF THE SAMPLES

| | Shanghai | Beijing | Guangzhou | Total |
|-------------------------|----------|---------|-----------|-------|
| Household head (HH) age | | | | |
| 0–29 | 93 | 140 | 125 | 358 |
| 30–64 | 290 | 249 | 264 | 803 |
| Above 65 | 16 | 12 | 11 | 39 |
| HH gender | | | | |
| Male | 343 | 335 | 327 | 1,005 |
| Female | 57 | 72 | 71 | 200 |
| Marriage | | | | |
| Single | 41 | 97 | 97 | 235 |
| Married | 357 | 310 | 301 | 968 |
| Children | | | | |
| Stay with no child | 234 | 247 | 216 | 697 |
| Stay with ≥ 1 child | 166 | 161 | 184 | 511 |
| University degree | | | | |
| None | 358 | 336 | 344 | 1,038 |
| Hold | 42 | 72 | 56 | 170 |
| Hukou status | | | | |
| Other rural hukou | 289 | 243 | 217 | 749 |
| Other urban hukou | 56 | 77 | 71 | 204 |
| Local rural hukou | 5 | 46 | 23 | 74 |
| Local urban hukou | 49 | 40 | 89 | 178 |

(continued)

TABLE 1. (CONTINUED)

| | Shanghai | Beijing | Guangzhou | Total |
|--|----------|---------|-----------|-------|
| Income per month | | | | |
| 0-1,999 | 78 | 125 | 154 | 357 |
| | | 33% | 39% | 33% |
| 2,000-3,999 | 166 | 179 | 158 | 503 |
| | | 47% | 40% | 47% |
| 4,000-5,999 | 37 | 54 | 58 | 149 |
| | | 14% | 15% | 14% |
| 6,000-7,999 | 11 | 10 | 13 | 34 |
| | | 3% | 3% | 3% |
| above 8,000 | 3 | 13 | 17 | 33 |
| | | 3% | 4% | 3% |
| HH occupation | | | | |
| State-owned enterprise (SOE) | 17 | 33 | 22 | 72 |
| | | 9% | 6% | 6% |
| Collective-owned enterprise (COE) or other enterprises | 52 | 56 | 39 | 147 |
| | | 14% | 10% | 13% |
| Private business | 203 | 201 | 228 | 632 |
| | | 52% | 58% | 56% |
| Retired | 4 | 3 | 1 | 8 |
| | | 1% | 0% | 1% |
| Others | 76 | 95 | 106 | 277 |
| | | 24% | 27% | 24% |
| HH employment | | | | |
| Manager or head | 2 | 11 | 8 | 21 |
| | | 3% | 2% | 2% |
| Technician | 35 | 46 | 52 | 133 |
| | | 13% | 15% | 13% |
| Staff | 41 | 15 | 23 | 79 |
| | | 4% | 7% | 8% |
| Industrial worker | 41 | 57 | 39 | 137 |
| | | 16% | 11% | 13% |
| Service worker | 177 | 167 | 175 | 519 |
| | | 47% | 51% | 50% |
| Peasants | 12 | 16 | 6 | 34 |
| | | 4% | 2% | 3% |
| Others | 29 | 46 | 39 | 114 |
| | | 13% | 11% | 11% |

when they are industrial workers. When they marry, they may move to urban villages. To minimize commuting costs, migrants choose to live near their jobs, because most service jobs are near villages. One male migrant said,

The reason we live here is just for a cheap price. If we have (more) money we would have already moved to better public housing (*gong fang*). This is the general situation here. We just choose a cheap house to commute conveniently to the working place.

Table 2 reports on housing conditions of our survey respondents. Remarkable differences are found between migrants and nonmigrants and between cities. First, in terms of the length of residence, about 46.9% village dwellers have lived there less than 3 years. Only 11.5% have lived there for a long term over 30 years. There is a great difference between migrants and nonmigrants. About 55.8% of migrants have lived in villages for less than three years, while about 52.8% of nonmigrants have lived there for more than 30 years. There are also great differences between cities. In Guangzhou, village dwellers have longer periods of residence. About 61.7% of Guangzhou village dwellers have lived there over three years; the figures for Shanghai and Beijing are 50% and 46%, respectively. This is largely due to the relative instability of urban village development in Beijing and Shanghai. In Beijing, for instance, we found that demolition had started in some of our selected villages. As a result, we had to remove them from the sample; this happened several times.

In terms of housing tenure, about 82.8% of our survey respondents live in private rental housing. However, 80.9% of nonmigrants are homeowners, whereas 99.3% of migrants live in rental housing. The homeownership rate in Guangzhou is 21.5%, higher than in Beijing (17.2%) or Shanghai (13%). Thus, the villages also provide a chance for some other urban residents to achieve homeownership. In the Panyu District of Guangzhou, we even found that a majority of village estates had been "purchased" by Wenzhou people, the well-known property speculators. About 12% of sampled households share their houses with other families. The probability of house sharing for migrants is 13.5%, much higher than for nonmigrants where it is 7.2%. House sharing may have a negative impact on residential satisfaction, which may be reflected, in our analysis, in the *hukou* factor. In urban villages of Shanghai, for instance, one house may be subdivided to provide rooms for over 20, usually migrant, households. One migrant woman told us,

We had planned to install an air conditioner. You see, the price of air conditioner is decreasing. We are not unable to afford it. The problem is the limit of the house's electricity. It is impossible to support so many households (to use air conditioners) Also, the owner did not like to see a mass of air conditioners.

In terms of housing size, the average floor space is 35.8 square metres. But, the figure for migrants is only 20.3 square metres, while the nonmigrant population has space of 94 square metres. The size of living space is very different between migrants and nonmigrants. In addition, the average floor space for Shanghai is much smaller, only 19.2 square metres, while Beijing villages have an average of 40.4 square metres and Guangzhou villages have 47.8 square metres. Our observations during fieldwork confirm that

TABLE 2. HOUSING VARIABLES OF THE SAMPLES

| Variables | Shanghai | | Beijing | | Guangzhou | | Migrants | | Nonmigrants | | Total | |
|--|----------|------|----------|------|-----------|------|----------|------|-------------|------|----------|------|
| | <i>N</i> | % | <i>N</i> | % | <i>N</i> | % | <i>N</i> | % | <i>N</i> | % | <i>N</i> | % |
| Length of residency (<i>N</i> = 1,198) | | | | | | | | | | | | |
| 0–3 year | 128 | 50.0 | 141 | 54.0 | 119 | 38.3 | 360 | 55.8 | 27 | 15.0 | 387 | 46.9 |
| 4–10 year | 75 | 29.3 | 70 | 26.8 | 88 | 28.3 | 217 | 33.6 | 15 | 8.3 | 232 | 28.1 |
| 11–30 year | 27 | 10.5 | 21 | 8.0 | 64 | 20.6 | 68 | 10.5 | 43 | 23.9 | 111 | 13.5 |
| Above 30 year | 26 | 10.2 | 29 | 12.9 | 40 | 12.9 | 0 | 0.0 | 95 | 52.8 | 95 | 11.5 |
| Property ownership (<i>N</i> = 1,187) | | | | | | | | | | | | |
| Rental | 348 | 87.0 | 338 | 82.8 | 314 | 78.5 | 945 | 99.3 | 47 | 19.1 | 992 | 82.8 |
| Own | 52 | 13.0 | 70 | 17.2 | 86 | 21.5 | 7 | 0.7 | 199 | 80.9 | 206 | 17.2 |
| House sharing (<i>N</i> = 1,181) | | | | | | | | | | | | |
| Self-use | 377 | 94.5 | 343 | 87.1 | 324 | 82.0 | 817 | 86.5 | 220 | 92.8 | 1037 | 87.8 |
| Share | 22 | 5.5 | 51 | 12.9 | 71 | 18.0 | 127 | 13.5 | 17 | 7.2 | 144 | 12.2 |
| House ownership (<i>N</i> = 1,198) | | | | | | | | | | | | |
| Rental | 348 | 87.0 | 338 | 82.8 | 314 | 78.5 | 945 | 99.3 | 47 | 19.1 | 992 | 82.8 |
| Own | 52 | 13.0 | 70 | 17.2 | 86 | 21.5 | 7 | 0.7 | 199 | 80.9 | 206 | 17.2 |
| Floor space (mean) (<i>N</i> = 1,130) | 19.2 | | 40.4 | | 47.8 | | 20.3 | | 94 | | 35.8 | |
| Housing type (<i>N</i> = 1,198) | | | | | | | | | | | | |
| One bedroom | 295 | 81.0 | 262 | 75.5 | 236 | 59.7 | 722 | 83.1 | 65 | 28.4 | 787 | 71.7 |
| Two bedrooms | 51 | 14.0 | 40 | 11.5 | 113 | 28.6 | 116 | 13.3 | 87 | 38.0 | 203 | 18.5 |
| Three bedrooms | 13 | 3.6 | 13 | 3.7 | 33 | 8.4 | 23 | 2.6 | 35 | 15.3 | 58 | 5.3 |
| Others | 5 | 1.4 | 32 | 9.2 | 13 | 3.3 | 8 | 0.9 | 42 | 18.3 | 50 | 4.6 |
| Built-up time of the house (<i>N</i> = 1,099) | | | | | | | | | | | | |
| House time pre-1949 | 2 | 0.6 | 4 | 1.0 | 8 | 2.0 | 6 | 0.7 | 8 | 3.3 | 14 | 1.3 |
| House time 1950–1980 | 117 | 36.2 | 16 | 4.1 | 22 | 5.5 | 124 | 14.5 | 30 | 12.3 | 154 | 14.0 |
| House time 1980–1999 | 187 | 57.9 | 208 | 53.9 | 224 | 56.4 | 468 | 54.7 | 145 | 59.4 | 613 | 55.8 |
| House time 2000–2010 | 17 | 5.3 | 158 | 40.9 | 143 | 36.0 | 257 | 30.1 | 61 | 25.0 | 318 | 28.9 |

dwellings in Shanghai's urban villages are smaller than in Beijing and Guangzhou. For example, about 81% of Shanghai's village dwellers live in one bedroom, more than the percentages of 75.5% in Beijing and 59.7% in Guangzhou. In terms of construction periods, most houses were built after 1980, i.e., after market reform. There is a significant difference between these three cities. Only 5.3% were built after 2000 in Shanghai, but 40.9% were built in Beijing and 36% in Guangzhou. This suggests that control over village construction is most stringent in Shanghai. Accordingly, very few investments have been made to upgrade urban village housing in Shanghai, and thus housing quality has deteriorated. A house owner in Shanghai described the situation in detail:

Most of our houses here were built in the 70s, some in the 80s, but none after 2000. Most of them were two to three floors, at most four. Because the basement is not stable ... we dare not to build high (building). You see, most of the fourth floors were built with light materials, wood board, sheet iron, etc... Here we are only afraid of heavy rains (because) the major material of newly built house is just mud. If there is a heavy rain, the new houses could easily collapse. It has already happened several times.

Residential Satisfaction

The satisfaction portion of the survey examined four aspects of residential satisfaction: housing, sanitation, security, and neighborhood. Each household head was asked to give scores of 1 to 5 for 14 items such as housing area, quality, and neighborhood relations. These items provide detailed information that interviewees later merged into broader categories. For example, for housing the household head scored two items—satisfaction regarding housing size and housing quality. Researchers then grouped into four aspects and further summed them to give a final index of residential satisfaction. The index was then scaled to a range of zero to 100. The higher the value, the higher the residential satisfaction. These scores are noted in Table 3.

Given that the majority of the sampled residents are migrants, the score of the complete sample is almost the same as that of migrants alone, which is around 3.00. Overall, nonmigrants are more satisfied than migrants. This appears to confirm Hypothesis 1; nevertheless, migrants are more satisfied than nonmigrants with respect to satisfaction with their “security,” by which we mean security from crime. As such, Hypothesis 4 (that migrants have higher satisfaction than nonmigrants) can only be partly accepted. Parkes et al. (2002) suggest that low-income communities are more sensitive to unfriendliness and crime in Western cities. However, we find in our Chinese cases that migrants are not unhappy with their level of security. The difference between migrants and nonmigrants in urban villages is more pronounced with respect to housing conditions. Migrants assigned

TABLE 3. RESIDENTIAL SATISFACTION OF THE SAMPLES^a

| Mean | Shanghai | | Beijing | | Guangzhou | | All | |
|--------------------------------|----------|------------|---------|------------|-----------|------------|---------|------------|
| | Migrant | Nonmigrant | Migrant | Nonmigrant | Migrant | Nonmigrant | Migrant | Nonmigrant |
| Housing | 2.89 | 3.22 | 2.91 | 3.68 | 2.98 | 3.42 | 2.92 | 3.46 |
| Sanitary | 2.59 | 2.02 | 2.72 | 2.47 | 2.84 | 3.18 | 2.71 | 2.70 |
| Security | 3.19 | 2.85 | 3.15 | 2.66 | 3.31 | 3.32 | 3.21 | 3.00 |
| Neighborhood | 3.04 | 2.87 | 2.74 | 2.67 | 3.08 | 3.33 | 2.96 | 3.02 |
| Residential satisfaction index | 53.5 | 54.6 | 48.4 | 53.5 | 56.4 | 63.4 | 52.8 | 58.3 |

Note: ^aIn the questionnaire the scores of residential satisfaction can be 1, 2, 3, 4, or 5, indicating the range between “very dissatisfied” and “very satisfied”; residential satisfaction index is calculated as $\sum Si/70 * 100$; the range of the residential satisfaction index is 0–100, the higher the score, the higher the satisfaction level.

an average score of only 2.92 to housing conditions, whereas nonmigrants scored housing conditions with an average 3.46. This gap is consistent among the three cities. In general, the index of residential satisfaction for migrants is 52.8, while for nonmigrants it is 58.3. In the next section, we subject the validity of this difference to multivariate analysis to control for other factors such as individual attributes.

In terms of overall residential satisfaction, Beijing, Shanghai, and Guangzhou demonstrate some differences. Residents in Guangzhou are most satisfied. This tends to confirm Hypothesis 2 that residential satisfaction differs according to context and location. Nonmigrants in Guangzhou's urban villages have a satisfaction index of 63.4 and migrants have 56.4, much higher than in the other two cities. Migrants in Beijing expressed the lowest satisfaction, with an index of only 48.4. Beijing and Shanghai share some similarities. Except for housing conditions, migrants are more satisfied than nonmigrants about "sanitation", "security", and "neighborhood quality." This is perhaps a consequence of the low expectations of migrants with regards their urban life. What migrants are not satisfied with is housing conditions. In Shanghai, an Anhui migrant woman claimed,

My son found this house. Young man is smart; he asked around and quickly found here. We did not have any facilities, as you can see, we use public toilet. If they demolish this village, we will keep moving (away). We do not need good facilities; we do not need air conditioner, private kitchen; we just want to save money. Frankly speaking, residents here are poor people. If their families have money, if they work in factories at hometown, they would not turn to be migrants. We have stayed here for three years. The housing price was very cheap in the past. Now the price has increased. This (life) is easier than doing farming. I am quite satisfied.

In contrast, nonmigrants in Guangzhou are more satisfied than migrants across all dimensions. This is largely due to the welfare and benefits granted to local villagers and denied to the migrant population in Guangzhou. Neither local villagers nor the migrant population in Beijing and Shanghai have shares or benefits.

The facility condition scores are shown in Table 4. It is interesting to note that most facilities available in the city can be found in urban villages, though the conditions and quality may be different. About 42.2% of urban village dwellers have own-use kitchens, 70.1% have gas, and 37.2% are connected to the internet. Remarkable disparities can be found between migrants and nonmigrants. The average facility index (which is calculated as the ratio of the number of dwellers who own selected facilities to the total number of dwellers) for migrants is 28, while for nonmigrants it is 62. Only 16.3% of migrants have air conditioners, while 69.4% of nonmigrants have air conditioners; 31% of migrants have internet connections, while 61.2% of nonmigrants are connected.

Scores for facility conditions in Guangzhou are better than in Beijing and Shanghai. For nonmigrants, the conditions in the three cities are similar, as the indexes in Beijing, Shanghai, and Guangzhou are 62, 59, and 64 respectively. However, there are great differences for migrants; the indexes for Beijing, Shanghai and Guangzhou are 23, 17, and 48, respectively. This difference results from both location and local control. Most urban villages in Shanghai are located much nearer to the city. Control over self-built

TABLE 4. FACILITY CONDITIONS OF THE SAMPLES^a

| | Shanghai | | Beijing | | Guangzhou | | All | |
|--------------------------|----------|------------|---------|------------|-----------|------------|---------|------------|
| | Migrant | Nonmigrant | Migrant | Nonmigrant | Migrant | Nonmigrant | Migrant | Nonmigrant |
| Index of facility (mean) | 17 | 62 | 23 | 59 | 48 | 64 | 28 | 62 |
| Kitchen (%) | 9.8 | 90.7 | 16.8 | 76.3 | 71.1 | 92.8 | 30.7 | 86.9 |
| Toilet (%) | 7.8 | 79.6 | 13.0 | 53.8 | 87.5 | 91.9 | 33.6 | 76.7 |
| Shower (%) | 5.2 | 66.7 | 7.0 | 57.0 | 74.6 | 92.8 | 26.8 | 75.4 |
| Gas (%) | 76.9 | 77.8 | 40.3 | 73.8 | 0.0 | 0.0 | 66.6 | 83.7 |
| Air conditioner (%) | 13.9 | 87.0 | 14.0 | 62.5 | 21.6 | 65.8 | 16.3 | 69.4 |
| Heating (%) | 0.0 | 5.7 | 47.1 | 73.8 | 2.8 | 5.4 | 16.5 | 26.9 |
| Internet (%) | 15.9 | 57.4 | 38.2 | 58.8 | 41.5 | 65.0 | 31.0 | 61.2 |

Note: ^aThe calculation of “Index of facility” is based on the dummy variable (IF) of the ownership of various facilities (yes = 1, no = 0); Index of facility is calculated as $\sum IF/7 * 100$; the score of the index is 0–100, the higher the score, the higher the facility conditions.

housing is much stricter in Shanghai than in the other two cities, which prevents spontaneous extension and upgrading. In addition, as a specialist we interviewed in Shanghai said:

The land of some urban villages like Gaojiabang has already been sold to real estate agencies. But for various reasons, the investors did not trigger the project. As a result, they strictly control the extension (of these villages) before the right moment to redevelop them.

The gap between migrants and nonmigrants differs across the three cities. Shanghai has the largest gap, while Guangzhou has the smallest gap. In Shanghai, only 9.8% of migrants have own-use kitchens, while 90.7% of nonmigrants do. However, for Guangzhou, 71.1% of migrants have such a facility; facility conditions vary from city to city.

The final variable is neighborhood attachment. Table 5 reports the scores for neighborhood attachment. The index is composed from a series of “standard” questions about the neighborhood, such as the question “my family participates in neighborhood social events”, and “I belong to this neighborhood.” Scores from 1 to 5 are given to each question. Migrants have a much lower score. For example, the average score for “my family participates in neighborhood social events” is only 2.39. The item “I belong to this neighborhood” obtains a score of 4.21 for nonmigrants, but only 2.65 for migrants, suggesting that migrants have a very low sense of neighborhood belonging. The composite index of neighborhood attachment (with a range of zero to 100) is much lower for migrants, 59.4, while for nonmigrants it is 71.8. The subjective feeling of rootlessness may have a negative effect on the satisfaction of migrants.

TABLE 5. NEIGHBORHOOD ATTACHMENT INDEX OF THE SAMPLES^a

| | Shanghai | Beijing | Guangzhou | Migrants | Nonmigrants | All |
|--|----------|---------|-----------|----------|-------------|-------|
| Local residents are nice to my family | 3.61 | 3.68 | 3.52 | 3.55 | 3.80 | 3.60 |
| Neighborhood residents have the same perspectives and habits | 3.31 | 3.19 | 3.06 | 3.10 | 3.56 | 3.19 |
| I can get help from the neighbors | 3.36 | 3.27 | 3.10 | 3.20 | 3.52 | 3.25 |
| I know a number of neighbors | 3.45 | 3.24 | 3.24 | 3.18 | 3.99 | 3.31 |
| Most neighbors know me | 3.47 | 3.27 | 3.35 | 3.22 | 4.06 | 3.36 |
| I belong to this neighborhood | 2.95 | 2.80 | 2.99 | 2.65 | 4.21 | 2.92 |
| I care about my neighbors' perspective upon me | 3.05 | 2.73 | 2.79 | 2.82 | 3.06 | 2.86 |
| My family participate in neighborhood events | 2.64 | 2.21 | 2.32 | 2.30 | 2.86 | 2.39 |
| Neighborhood residents may sort out problems together | 2.82 | 2.60 | 2.86 | 2.68 | 3.10 | 2.76 |
| It is important for me to be a membership of this neighborhood | 2.97 | 2.84 | 2.96 | 2.80 | 3.50 | 2.92 |
| Neighborhood residents concern about each others | 3.09 | 3.06 | 3.20 | 3.05 | 3.41 | 3.12 |
| I prefer to staying a long-term in this neighborhood | 3.16 | 3.23 | 3.20 | 3.04 | 3.96 | 3.20 |
| Index of neighborhood attachment | 63.22 | 60.44 | 61.01 | 59.40 | 71.84 | 61.56 |

Note: ^aIn the questionnaire the scores of residential satisfaction can be 1, 2, 3, 4, or 5, indicating the range between "very dissatisfy" and "very satisfy"; Index of neighborhood attachment is calculated as $\sum Si/60 * 100$; the score of the index is between 0 and 100, the higher the score, the higher the attachment level.

DETERMINANTS OF RESIDENTIAL SATISFACTION

In our analysis we use the index of residential satisfaction as the dependent variable in order to analyze the determinants of residential satisfaction. Because the composite index is the sum of 14 evaluation scores, the value approximates a continuous variable with normal distribution. Socio-demographic status, housing conditions, facilities, and neighborhood attachment index are used as independent variables. In total, 24 variables are used to control other factors that, according to the literature, may affect residential satisfaction.

Models 1–4 (Table 6) report the regression results for Beijing, Shanghai, Guangzhou, and also for the three cities combined. In order to decrease the impacts of data collinearity, we undertook "forward" stepwise regression in SPSS, which started with no variables and then added them in order of significance, eventually to identify the significant variables as the "determinants" of the regression. The tolerance statistic, which diagnoses multicollinearity problems, is shown in Table 6; none of the variables selected for the models were problematic in this regard. The main result of our regression is that the three cities display a diversity of possible relations between the targeted socioeconomic variables and

TABLE 6. LINEAR REGRESSION FOR THE DETERMINANTS OF RESIDENTIAL SATISFACTIONS^a

| | Beijing | | | Shanghai | | | Guangzhou | | | All | | |
|--|---------|--------|-----|----------|--------|-----|-----------|-------|-------|--------|--------|-------|
| | B | t | Cd | B | t | Cd | B | t | Cd | B | t | Cd |
| (Constant) | 17.075 | 4.365 | *** | 35.027 | 9.551 | *** | 21.246 | 7.436 | *** | 26.058 | 12.094 | *** |
| Hukou status | | | | | | | | | | | | |
| (reference: other rural <i>hukou</i>) | | | | | | | | | | | | |
| Local urban <i>hukou</i> | -14.961 | -2.198 | * | 0.988 | | | | | | | | |
| Local rural <i>hukou</i> | | | | | | | | | | | | |
| Other urban <i>hukou</i> | | | | -4.576 | -2.997 | ** | 0.903 | | | | | |
| Share holders [†] | | | | | | | | | | | | |
| Homeownership [†] | | | | | | | | | | | | |
| Kitchen [†] | | | | | | | 3.357 | 2.416 | * | 0.840 | | |
| Toilet [†] | | | | 5.793 | 3.056 | ** | 0.933 | | | 4.279 | 4.797 | *** |
| Shower [†] | | | | | | | | | | | | 0.731 |
| Gas [†] | 5.525 | 3.552 | *** | -2.817 | 2.226 | * | 0.956 | | | | | |
| Air conditioner [†] | | | | | | | 3.503 | 2.328 | * | 0.868 | 2.848 | ** |
| Heating [†] | | | | | | | | | | -2.873 | -2.597 | * |
| Internet [†] | | | | 4.586 | 3.242 | ** | 0.937 | | | | | |
| Index of attachment | 0.479 | 7.969 | *** | 0.301 | 5.456 | *** | 0.935 | 0.451 | 9.162 | *** | 0.885 | *** |
| Control variables | | | | | | | | | | | | |
| HH age | | | | | | | | | | | | |
| Gender female [†] | | | | | | | | | | | | |
| Married [†] | | | | | | | | | | | | |
| ≥1 child [†] | | | | | | | | | | | | |

(continued)

TABLE 6. (CONTINUED)

| | Beijing | | | Shanghai | | | Guangzhou | | | All | | |
|---------------------------------|---------|--------|----|----------|---|----|-----------|-------|-----|-------|--------|--------|
| | B | t | Cd | B | t | Cd | B | t | Cd | B | t | Cd |
| Educational attainment | | | | | | | | | | | | |
| (reference: college and above) | | | | | | | | | | | | |
| Primary school and below | | | | | | | | | | | | |
| High school | | | | | | | | | | | | |
| Income (reference: above 8,000) | | | | | | | | | | | | |
| 0–1,999 | | | | | | | 8.277 | 5.187 | *** | 0.582 | | |
| 2,000–3,999 | | | | | | | 4.711 | 3.115 | ** | 0.591 | –2.659 | –3.251 |
| 3,999–5,999 | | | | | | | | | | | –4.305 | –3.623 |
| 6,000–7,999 | | | | | | | | | | | –6.897 | –3.009 |
| Rental | | | | | | | | | | | | |
| Employment (reference: others) | | | | | | | | | | | | |
| Manager | | | | | | | | | | | | |
| Technician | –5.222 | –2.377 | * | | | | | | | | | |
| Staff | | | | | | | | | | | | |
| Industry worker | | | | | | | | | | | | |
| Service worker | | | | | | | | | | | | |
| Peasant | | | | | | | | | | | | |
| Length of residence | | | | | | | | | | | | |
| (reference: above 30 years) | | | | | | | | | | | | |
| 0–3 years | 3.734 | 2.325 | * | | | | | | | | 2.058 | 2.701 |
| 3–10 years | | | | | | | | | | | | |
| 10–30 years | | | | | | | | | | | | |
| Self-use floor space | | | | | | | | | | | | |
| | | | | | | | 0.048 | 1.972 | * | 0.827 | 0.069 | 3.202 |

(continued)

TABLE 6. (CONTINUED)

| | Beijing | | | Shanghai | | | Guangzhou | | | All | | |
|--|----------|-----|----|----------|-------|-----|-----------|-----|-------|--------|-----|----|
| | B | t | Cd | B | t | Cd | B | t | Cd | B | t | Cd |
| House built-up time (reference: after 2000) | | | | | | | | | | | | |
| Pre-1949 | | | | | | | | | | | | |
| 1950–1980 | | | | | | | | | | | | |
| 1980–1999 | | | | 5.256 | 4.764 | *** | | | 0.875 | | | |
| N | 408 | | | 400 | | | 400 | | | 1,208 | | |
| d.f. | 5 | | | 8 | | | 6 | | | 9 | | |
| F | 17.055 | *** | | 11.614 | *** | | 31.386 | *** | | 33.606 | *** | |
| Adjusted R ² | 0.249092 | | | 0.210218 | | | 0.38437 | | | 0.256 | | |

Notes: ^aCd, Collinearity diagnostics; [†] dummy variable; *Significant at 5%; **Significant at 1%; ***Significant at 0.1%.

residential satisfaction. This supports Hypothesis 3—that determinants of residential satisfaction vary in different cities—and confirms that residential satisfaction mechanisms are context-dependent. First, Guangzhou is significantly different from Beijing and Shanghai, since the impacts of *hukou* status are found in Beijing and Shanghai, but not in Guangzhou (Models 1–3). As mentioned above, Guangzhou, at the forefront of China’s reform and opening-up experiment, is far more marketized than the other cities—though, of course, much housing in China is still “distributed” by collective institutions such as work units (Li and Yi, 2007)—so that the lingering impacts of pre-reform institutional arrangements such as the *hukou* regime have been weakened (Li and Li, 2006). Second, the positive effect of selected facilities can be found across the three cities, including the availability of gas (Beijing, Shanghai), own-use kitchen (Guangzhou), toilets (Shanghai), and air conditioners (Guangzhou). This is likely due to the different geographical and weather conditions of these cities, such as Beijing and Shanghai’s cold winters, Guangzhou’s long, hot summers, and so on. Third, the result of Mode 1–4 shows that the determinants of residential satisfaction that emerge across the three cities include two factors: neighborhood attachment and the availability of “higher rank” facilities such as own-use toilets and air conditioners. The effects of neighborhood attachment also turn out to be very strong (Models 1–4). This suggests that the effect of neighborhood attachment is more important than socioeconomic variables and facilities (accepting Hypothesis 5, a positive relationship between residential satisfaction and length of residence). Or, seen the other way, the lack of neighborhood attachment reduces residential satisfaction, while facilities, though relevant, are not key determinants.

The above analyses held a set of variables constant while testing the influence of the factors under concern related to our hypotheses. Several factors stand out as statistically significant, and differences exist between the three cities (Hypothesis 3 accepted). In Beijing, employment status and length of residence are significant. For instance, settlers who have lived in the neighborhoods for less than 3 years are more satisfied than those who have lived there for over 30 years. In general, this shows that, all else being equal, newly arrived migrants are more satisfied than local villagers (Hypothesis 4 partly accepted). Second, income, length of residence, and period of construction are significant in Shanghai. Construction in the early period of reform appears to produce more satisfaction than for buildings built after 2000. The explanation may be that buildings built in the earlier stage of reform are generally more spacious and intended for family use rather than purposely built private rental housing. Third, only income and floor space are significant in Guangzhou. This further indicates that Guangzhou’s residential satisfaction is more market-driven as income has become a key determinant. When the three cities are pooled (Model 4), floor space, income, and period of construction are significant. Specifically, with reference to the higher income group (above 8,000 Yuan per month), the middle ranges are more dissatisfied, although the lower income groups do not appear to be significantly different. The amount of floor space contributes positively to residential satisfaction. In the context of extremely tight living space in urban villages, increased housing space provides more satisfaction to dwellers. Overall, therefore, a village dweller with a high income staying in a larger house built in the first decade of market reform may have higher residential satisfaction. It is revealing that the literature suggests that the socioeconomic attributes should be significant factor for residential satisfaction. However, in our case, except income, other socioeconomic attributes are not significant. This means,

whether a dweller in urban villages is happy or not is not influenced by who they are but rather their level of income, bearing in mind that migrants are mostly coming to the city for earning an income.

In sum, the factors underlying residential satisfaction are different in different cities. In Beijing, only far flung villages are accessible to migrants, since almost all villages within the 4th Ring Road have been cleared. In Shanghai much more stringent control has been exerted on the expansion of urban villages so that there is absence of new residential structures. In Guangzhou, a more relaxed control of informal developments provides opportunities for migrants to access larger residential units equipped with gas and water supply. Our analyses suggest that the determinants of residential satisfaction are mainly neighborhood attachment (most important), income, house size, and availability of some facilities such as air conditioners. These results reflect the specific preferences of migrant dwellers in the city, since they dominate the sample. Residents in urban villages live in these informal settlements to minimize their housing costs. Rural migrants have relatively low expectations of residential satisfaction, and therefore are less concerned about most housing attributes except for size. If they have “luxury” facilities such as air conditioners (which are in fact necessary in extreme weather in summer or winter) they tend to be satisfied. Nevertheless, their perception of acceptance in the host neighborhood—measured here by neighborhood attachment—is the principal determinant of their residential satisfaction. For Chinese village dwellers, socioeconomic statuses other than income and residential attributes (such as length of residence) are not significant determinants of residential satisfaction. In sum, our results differ substantially from those of past studies reviewed above, which mainly focus on middle-class residential satisfaction.

CONCLUSION

China's informal settlements are often portrayed in the official media as “chaotic, dirty and dangerous” places. The presence of informality, according to this characterization, is problematic and is detrimental to a prosperous urban image. Such assessments validate demolition policies that are justified according to criteria such as assessment of property rights, land prices or projected returns on investment. It is rare for the government to ask how residents living in these places actually feel about their neighborhoods. As we have shown in this paper, urban villages are different from informal settlements (squatter areas) in other developing countries. Before they were encircled by the city, they were just rural villages under self-management. The land management was lax but this did not impose a problem because there was limited incentive to extend and redevelop farmers' houses. The informality of urban villages is a construction of a state and derived from the dual urban–rural land market and land management system and by an underprovision of migrant housing (Wu et al., in press). The state's attempt to redevelop urban villages is an attempt to eliminate this informality and to create more governable spaces through formal land development. The characterization of “informality” as an inferior form of settlement is in contrast to the finding of this paper, which shows that the dwellers of urban villages generally have a more positive view toward their habitat.

Much of the literature suggests that residential satisfaction is dependent on context—local conditions, histories and geography not only matter, but may be the principal determinants of residential satisfaction. With this in mind, this paper uses a survey of

informal settlements in Beijing, Shanghai, and Guangzhou to examine the mechanisms of residential satisfaction. Considering that these places are low-income communities and meet the UN-Habitat (2003) definition of “slums” as places without adequate facilities and security of tenure, we include a series of measures of housing and facility conditions. In addition, we asked residents to score their sense of community, or neighborhood attachment. The results are quite revealing. First, in the cities of Beijing, Shanghai, and Guangzhou, the problem of inadequate facilities such as indoor toilets and kitchens does exist. However, facilities vary across different contexts. Guangzhou, for instance, has the highest percentage of village dwellers who possess key facilities. Second, despite these variations, the level of residential satisfaction is not necessarily low. In other words, residents in urban villages are not overwhelmingly negative about their neighborhoods. Third, migrants or people without local *hukou* are not necessarily unhappier than local residents. In fact, in our multivariate analysis of determinants of residential satisfaction, *hukou* status does not emerge as significant, though it does in other studies of housing inequalities (Huang and Deng, 2006; Li and Yi, 2007). This is likely due to the relatively low expectations of rural migrants compared with their urban resident counterparts, the temporary nature of their residence, and the tolerance of migrants for harsh living conditions. The caveat here is that our study compares only residents between urban villages and does not make city-wide comparisons. Fourth, relative to higher income groups in the village, the upper-middle-range of income earners are less satisfied, but this dissatisfaction does not extend to low-income groups. Again, this may reflect the level of aspirations and mismatch with reality of the upper-middle-range income groups. In other words, due to their generally lower expectations, low-income groups are not necessarily unhappier than higher-income groups. Fifth, the presence of some facilities (such as kitchen, shower, and air conditioner) may improve residential satisfaction. This is because in China’s urban villages, unlike in slums in other developing countries, some basic forms of infrastructure such as portable water and basic sanitation (public toilets) are already available.

Finally, the most important point is that none of these facilities (except air conditioner, in statistical terms) can compensate for lack of neighborhood attachment or negative feelings of being excluded. Dwellers in urban villages are mostly renters. They are not unhappy about their housing tenure in the private rental sector, as this is a way to minimize cost. What they are mostly dissatisfied with is exclusion and their status of being “rootless.” Migrants often do not feel they belong to their places of residence. This is deeply rooted in the disadvantaged position of informal settlement dwellers. Although migrants’ position is ultimately affected by their *hukou* status, converting them to local *hukou* does not immediately solve the problem. The lack of neighborhood attachment, though originating from the lack of de jure citizenship, is more deeply embedded in social and cultural practices of “community building.” Rural migrants would need to be integrated into local communities socially and culturally to make them feel that urban villages are places of their own.

Notwithstanding the UN-Habitat (2003) agenda to cope with the “challenge of slums,” from the perspective of residential satisfaction we argue that it is not proper to characterize China’s informal settlements as slums. The use of the language of “slums” has been contested in other contexts (Gilbert, 2007). Here, we argue that, from the residents’ own perspective, Chinese informal settlements are not slums. Of course, we observe that many

residents feel dissatisfaction about being excluded from the wider community. However, demolishing these villages will not lead to a “harmonious society,” which the Chinese government is striving to build. Rather, our results strongly suggest that it is more sensible to focus on removing barriers to social exclusion. Treating informal settlement dwellers as members of their local communities would greatly enhance residential satisfaction, which will positively contribute to building a sustainable society.

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